

## ABSTRACT OF THE DISCLOSURE

Briefly stated, the invention includes a method of making a transgenic plant that is capable of expressing a physiologically active human acetylcholinesterase, comprising the steps of introducing into at least one plant cell a polynucleotide that encodes a human  
5 acetylcholinesterase, and regenerating from the plant cell a transgenic plant that is capable of expressing a physiologically active human acetylcholinesterase in at least one tissue type of the transgenic plant. Another embodiment of the invention includes a method of making a physiologically active human acetylcholinesterase, comprising the steps of introducing into at least one plant cell a polynucleotide that encodes a human  
10 acetylcholinesterase, regenerating from the plant cell a transgenic plant that is capable of expressing a physiologically active human acetylcholinesterase in at least one tissue type of the transgenic plant, and isolating or purifying from the transgenic plant or a part thereof a physiologically active human acetylcholinesterase.